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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/796,176

03/09/2004

Michael Charles Shelton

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3518

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7590

09/29/2008

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KINGSPORT, TN 37662-5075

EXAMINER

HAIDER, SAIRA BANO

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

09/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/796,176	<b>Applicant(s)</b> SHELTON ET AL.	
	<b>Examiner</b> SAIRA HAIDER	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-25,27-38 and 40-84 is/are pending in the application.
- 4a) Of the above claim(s) 1-6,8-25,27-31,45,46,48-65,72-77,79,80,82 and 83 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 32-38,40-44,47,66-71,78,81 and 84 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/23/2008 &amp; 9/4/2008</u> .                                | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/23/2008 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 32-38, 40-44, 47, 66-69, 71, 81 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al. (US 5,292,783).
4. Buchanan discloses binary and ternary blends of cellulose esters and aliphatic-aromatic copolyesters, as well as fibers, molded objects, and films prepared therefrom (abstract). Suitable cellulose esters include cellulose acetate butyrate (CAB) and cellulose acetate propionate (CAP) (claims 32, 34, 37). Suitable cellulose esters have a total DS/AGU is about 1.7 to 3.0 and an inherent viscosity of about 0.20 to about 3.0 dL/g (as measured at 25°C in a 60/40 pbw solution of phenol/tetrachloroethane) (claim 32). Buchanan specifies that for CAP, the DS/AGU of acetyl ester is 1-50% of the total ester content, thus, the DS/AGU is in the range of 0.02-1.5, upon calculation the DS/AGU of propionate is in the range of 1.5-2.98, and the DS-AGU of hydroxyl is in the range of 0-0.04 (claim 36).
5. Applicant has claimed a value of total DS/AGU is about 3.08, wherein Buchanan discloses a value of about 3.0, and applicant has claimed a DS/AGU of hydroxyl of about 0.05, wherein

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Buchanan discloses a value of 0.04. It is noted that the term "about" permits some tolerances, wherein at least about 10% was held to be anticipated by a teaching of a content not to exceed about 8%. In re Ayers, 154 F.2d 182, 69 USPQ 109 (CCPA 1946). Therefore the claimed limitations are held to be anticipated by the prior art.

6. Furthermore, in reference to the amendments submitted herein, applicant (in claims 32 and 81) has limited the inherent viscosity to maximum value of 0.12 dL/g. Furthermore, in claim 42, applicant has previously limited the inherent viscosity maximum value to 0.11 dL/g. The Buchanan reference discloses a lower limit of about 0.20 dL/g, wherein it is the examiner's position that one skilled in the art would have expected the composition of the Allen reference to have the same properties as the claimed composition. As noted above, the term "about" permits some tolerances. Additionally, a difference of about 0.08-0.09 dL/g in the inherent viscosity is not expected to change the properties of the composition. It has been held that a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

7. In view of the structural, chemical and viscosity similarities of the claimed composition and that of the prior art, the properties [molecular weights, polydispersity, clear solution formation, acid value (herein claims 32, 40, 41, 43)] applicant claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Specifically, in reference to the claimed acid value of no greater than 5, since the cellulose acetate propionate of Buchanan fails to contain carboxyl functionality, thus the esters inherently have an acid value of less than about 5. Note, that because the references do not expressly teach or address the properties of the claimed invention, it does not mean that the properties are not inherently disclosed. Teaching the same compound(s) inherently

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discloses the corresponding properties. The references cannot possibly teach or address all of the properties, but implicitly all of the properties are present.

8. In reference to herein claims 47, 66-71, 78, Buchanan discloses the formation of films, wherein the films comprise ternary blends of cellulose esters and aliphatic-aromatic copolyesters (abstract). The blend comprises about 4-97 wt % of the above discussed cellulose esters, and about 2-97 wt % of an aliphatic polyester (coating resin) (claim 32). Wherein the components are blended in an solvent, which includes water (col. 17, line 65 to col. 18, line 2; col. 6, line 55-60). The composition further contains 0.001-50 wt % of additives such as UV light stabilizers and colorants (claim 54). Buchanan discloses the formation of a variety of articles, include those which require metal, such as tool handles and razor parts (col. 15, lines 60-66).

9. In reference to claims 33-36, and 44, Buchanan fails to disclose the DS/AGU of acetyl ester of cellulose acetate butyrate (CAB). However, Buchanan discloses that the preferred cellulose esters are CAP and CAB, wherein Buchanan discloses the DS/AGU of acetyl ester of CAP. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize CAB with the same DS/AGU of acetyl ester as disclosed for CAP. Motivation for the substitution is provided by the fact that both are preferred embodiments and substitution of one for the other is readily within the skill of one in the art.

10. In view of the structural, chemical and viscosity similarities of the claimed composition and that taught by the prior art, the properties [clear solution formation and mixed ester viscosity] applicant claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Note, that because the references do not expressly teach or address the properties of the claimed invention, it does not mean that the properties are not inherently disclosed. Teaching the

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same compound(s) inherently discloses the corresponding properties. The references cannot possibly teach or address all of the properties, but implicitly all of the properties are present.

11. Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al. (US 5,292,783) in view of Allen et al. (US 5,668,273).

12. Buchanan fails to disclose aluminum or mica as suitable pigments. Thus, attention is directed towards the Allen reference, which discloses a coating composition comprising cellulose esters, a resin, solvent, and additives (col. 8, lines 14-55; col. 9, lines 15-27). Wherein suitable additives include pigments comprised of aluminum or mica (claim 17). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize aluminum or mica as pigments in the invention of Buchanan. Wherein motivation is provided by the fact that aluminum or mica pigments are art recognized as suitable for an intended purpose, pigmentation. The selection of a known material based on its suitability for its intended use supported a *prima facie* obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP § 2144.07.

### ***Response to Arguments***

13. Applicant's arguments filed 7/23/2008 have been fully considered but they are not persuasive.

14. Applicant has argued that since the prior art references fail to function in the claimed range and disclose benefits obtained in particular applications via functioning at higher IV's, then the references guide one away from lowering the IV below the lowest disclosed limit. In response, the fact that the references do not function in the claimed range does not constitute a teaching away.

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Further, the fact that the higher IV is preferred for particular applications does not teach away from using the lower IV's in different applications.

15. In support of their argument, applicants cite examples of Buchanan which do not meet the claimed values. In response, as per MPEP § 2123, patents are relevant for prior art for all they contain, specifically, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. Thus, the examples of Buchanan which fall outside the claimed range do not constitute a teaching away from the alternative disclosures which fall within the claimed range. Thus, the rejection is maintained and rendered valid.

16. In reference to the arguments regarding the claimed DS values, as noted above, preferred embodiments (of the Buchanan reference to function in the range of 1.7-2.75) do not constitute a teaching away from a broader disclosure (of a broad range of 1.7-3.0) or nonpreferred embodiments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAIRA HAIDER whose telephone number is (571)272-3553. The examiner can normally be reached on Monday-Friday from 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randy Gulakowski/  
Supervisory Patent Examiner, Art Unit 1796

Saira Haider  
Examiner  
Art Unit 1796